

REMARKS/ARGUMENTS

Reconsideration of the application is respectfully requested based on the following amendments and remarks.

Claims 1-10 and 53-64 have been rejected by the Examiner. Claims 54 and 64 have been amended to further clarify the subject matter regarded as the invention. Claims 1-10 and 53 have been canceled. Claims 11-52 and 54-64 are now pending in this application.

Rejections Based on 35 U.S.C. § 112, 1st and 2nd Paragraphs

In the Office Action, the Examiner has rejected Claim 64 as failing to comply with 35 U.S.C. § 112. The Applicants have amended Claim 64 to clarify that the selection array is a "LCD filter array". The applicants believe that this amendment overcomes the pending ground of rejection. Accordingly, the applicants respectfully request that this grounds of rejection be withdrawn as to claim 64.

Rejections Under 35 U.S.C. § 102

Rejections under Nakata:

Claims 1, 3, 4, 6, 9, 10, and 53 stand rejected as being anticipated by *Nakata et al.* (USPN 5,046,847) (hereinafter *Nakata*) under 35 U.S.C. § 102(b). Claims 1-10 are cancelled making this ground of rejection moot as to those claims.

Additionally, Claim 53 has been cancelled making this rejection of Claim 53 also moot.

Rejections under Goldberg:

Claims 4, 6, 7, 9, and 53 stand rejected as being anticipated by *Goldberg et al.* (USPN 6,366,352) (hereinafter *Goldberg*) under 35 U.S.C. § 102(b). Claims 1-10 are cancelled making this ground of rejection moot as to those claims.

Additionally, Claim 53 has been cancelled making this rejection of Claim 53 also moot.

Rejections under Vaez-Iravani:

Claims 4, 6, 7, 9, and 53 stand rejected as being anticipated by *Vaez-Iravani et al.* (USPN 6,201,601) (hereinafter *Vaez-Iravani*) under 35 U.S.C. § 102(b). Claims 1-10 are cancelled making this ground of rejection moot as to those claims.

Additionally, **Claim 53** has been cancelled making this rejection of Claim 53 also moot.

Accordingly, all pending 102 rejections are made moot by the cancellation of Claims 1-10 and 53. Consequently, the applicants respectfully request that all anticipation rejections be withdrawn.

Rejections Under 35 U.S.C. § 103

Numerous Claims have been rejected as unpatentable under 35 U.S.C. § 103 over various cited references. As stated above, Claims 1-10 and 53 have been cancelled obviating these grounds of rejection as to the cancelled claims.

The only remaining rejections are the rejections based on *Danko et al.* (USPN 5,659,390) (hereinafter *Danko*) or Danko in view of other references and in the case of Claim 55 several asserted references. Each of these rejections will be discussed in turn.

Rejections under Danko:

Claims 1-4, 6, 8-10, 53-60, and 63-64 stand rejected as being unpatentable over *Danko et al.* (USPN 5,659,390) (hereinafter *Danko*) under 35 U.S.C. § 103.

As stated above, **Claims 1-10 and 53** have been cancelled obviating these grounds of rejection as to these claims.

However, other claims have been amended to overcome the pending rejections. In summary, Claims 54-60 and 63-64 also stand rejected as being unpatentable over *Danko*. Although *Danko* appears to have some superficial resemblance to the claims invention it falls considerably short of teaching or suggesting all the claim limitations of the claimed invention. This point can be illustrated with respect to, for example, in **Claim 54** (which has been amended to contain all the limitations of Claim 53) the cited art fails to teach or suggest the limitation of "determining which of the scattered light comprises the ordinary scattering pattern of the workpiece" and "after identifying the ordinary scattering pattern, selectively excluding a substantial portion of the ordinary scattering pattern from detection, thereby selectively detecting the defect scatter". The point of this invention is to preferentially exclude

background optical signal that does not contain defect signal information thereby enhancing the defect signal SNR for the remaining defect heavy signal. This does not appear to be taught in the cited art. The sole point of the fourier mask 23 of *Danko* is to cut reflected light signals above a certain intensity and corresponding to pattern lines of the wafer (*Danko* 6:1-5). This does not teach or suggest preferentially excluding a substantial portion of the ordinary scattering pattern (i.e., the non-defect pattern). Thus, *Danko* indiscriminately cuts all light above a certain intensity level without discrimination as to whether it is in the ordinary scattering pattern or not. Thus, *Danko* does not benefit from the advantages of the present invention and, in fact, entirely misses the point of the present invention.

Moreover, it should be pointed out that, in general, a scattering pattern signal is generally positional in nature (See, for example, Figs. 4(a)-4(c) of the invention) and not intensity based as required by *Danko*. There is not teaching or suggestion anywhere in *Danko* that indicates the *Danko* inventors appreciated the unique advantages of the claimed invention. Quite simply, *Danko* fails to teach or suggest "determining which of the scattered light comprises the ordinary scattering pattern of the workpiece" and "after identifying the ordinary scattering pattern, selectively excluding a substantial portion of the ordinary scattering pattern from detection, thereby selectively detecting the defect scatter". Absent these limitations, the cited art fails to teach all of the claimed limitations. Accordingly, the applicants submit that the cited art does not teach or suggest the claimed limitations of Claim 54 or any of the claims depending therefrom (i.e., 55-60, 63, 64). For that reason, it is requested that this ground of rejection be withdrawn as to Claims 54-60, 63, 64.

Rejections under Danko in view of Goldberg:

Claims 61 & 62 are rejected as being unpatentable over *Danko* in view of *Goldberg* under 35 U.S.C. § 103. Although believed to be patentable for other reasons, the applicants submit that for at least the reasons expressed above with respect to Claim 54 (upon which claims 61 and 62 depend) that the cited art does not teach or suggest the claimed limitations of Claims 61 and 62. Moreover, it is clear that *Goldberg* does not teach distinguishing ordinary background scatter from defect scatter and the selectively reflecting the background scatter away from the detectors (as in the case in the claimed invention). For these reasons, it is requested that this ground of rejection be withdrawn as to Claims 61 and 62.

Rejections of Claims 5 and 55 under §103:

Claims 5 & 55 are rejected as being unpatentable over any one of, variously, *Nakata*, *Goldberg*, *Vaez-Iravani*, or *Danko* under 35 U.S.C. § 103.

As stated above, **Claim 5 has been cancelled** obviating these grounds of rejection as to this claim.

As to **Claim 55**, as explained below (and previously in the discussions of Claim 54), neither *Danko*, *Nakata*, *Goldberg*, nor *Vaez-Iravani* have any applicability to Claim 54 (upon which claim 55 depends). The amendments to claim 54 and the explanation contained above clearly distinguish this claim from the cited art. As previously explained, the cited art fails to teach or suggest the limitation of “determining which of the scattered light comprises the ordinary scattering pattern of the workpiece” and “after identifying the ordinary scattering pattern, selectively excluding a substantial portion of the ordinary scattering pattern from detection, thereby selectively detecting the defect scatter”. As explained above, for example, with respect to *Danko* the point of the fourier mask 23 of *Danko* is to cut reflected light signals above a certain intensity (*Danko* 6:1-5). **This does not teach or suggest the selective preferential exclusion of ordinary background scattering (i.e., the non-defect pattern).** Thus, as stated above, *Danko* cuts all light above a certain intensity level without discrimination as to whether it is in the ordinary scattering pattern or not. Additionally, it cannot be said of any of the cited art that they teach or suggest identification, selection, and preferential filtering of the scattering signal to preferentially remove the background optical signal as is the case in the claimed invention.

Absent such limitations, the cited art fails to teach all of the limitations of Claim 54 and hence claim 55. Accordingly, it is requested that this ground of rejection be withdrawn as to Claim 55.

Allowed Subject Matter

The applicants thank the Examiner for his kind indication of allowable subject matter as to Claims 11-52.

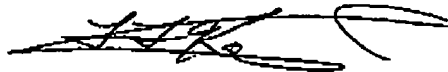
Conclusion:

It is respectfully submitted that all pending claims (Claims 11-52 and 54-64) are allowable and that this case is now in condition for allowance. Should the Examiner wish to contact the undersigned for any reason, the telephone number set out below can be used.

If any fees are due in connection with the filing of this Amendment, the Commissioner is authorized to deduct such fees from the undersigned's Deposit Account No. 50-0388 (Order No. KLA1P123).

Respectfully submitted,

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